**Documentation for the Better Birth Study**

The Better Birth study – a matched-pair, cluster-randomized controlled study – investigated using a checklist-based strategy in an area that was largely rural and had one of the highest rates of maternal and newborn mortality in India and globally. The goal was to try to reduce severe maternal, fetal, and newborn harm in Uttar Pradesh, India. Sixty primary and community health-care facilities were assigned to the intervention arm, which involved coaching-based implementation of a checklist-based program, and 60 matched control sites were also enrolled at the same time1. The results of the study indicated that the intervention did not reduce perinatal mortality, maternal morbidity, or maternal mortality2. A post-hoc analysis3 was carried out to further investigate any relationships of the outcomes (perinatal mortality, maternal morbidity, or maternal mortality) with facility-level attributes.

There are 120 observations (sites) and 43 variables on this file. The following is a brief description of the variables:

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable Name** | **Description** | **Additional Information** | |
| siteid | Facility Site ID |  | |
| totalmomsthisphase | Birth volume (in this phase) | Number of births (mothers) during this study phase | |
| died7 | Perinatal mortality, as a proportion | Proportion of perinatal deaths (infant death within 7 days of birth, including stillbirths) out of total births over a given period | |
| numdied | Perinatal mortality, in deaths per 1000 births | Number of perinatal deaths (infant death within 7 days of birth, including stillbirths) per 1000 births over a given period | |
| morbid | Maternal severe morbidity, as a proportion | Proportion of women experiencing seizures, loss of consciousness for more than 1 hr, fever with foul-smelling vaginal discharge, haemorrhage, or stroke within 7 days of birth out of total births over a given period | |
| duration | Duration in study (in days) | Note: Study was an 8-month intervention | |
| csection | Proportion of caesarean-section deliveries |  | |
| complicbefore | Proportion of patients with any of 14 complications |  | |
| anemia | Proportion of patients with anaemia or haemoglobin issues |  | |
| pairname | Matched-pair indicator |  | |
| arm | Intervention group indicator | 0 = Control arm (standard of care)  1 = Intervention arm (Safe Childbirth Checklist program) | |
| referredout | Proportion of referrals |  | |
| literacy | Proportion of females who are literate in the district | Data taken from government statistics in Uttar Pradesh (2014) | |
| highincome | Indicator of high income in the district | 1= average annual income greater than US$720  0 = average annual income less than US$720  Data taken from government statistics in Uttar Pradesh (2014) | |
| factype | Facility-type | 1 = Primary health centre  2 = Community health centre  3 = Community health centre first-referral unit | |
| distance | Distance to district hospital (in km) |  | |
| numstaff | Total number of staff |  | |
| supplies | Average number of supplies available (out of 28) at the site |  | |
| meds | Average number of essential medicines available (out of 4) at the site |  | |
| baage | Average age of birth attendants (in years) at the site |  | |
| balasttrained | Average number of years since last training for birth attendants at the site |  | |
| balasttrainedln | Log of the balasttrained variable |  | |
| baexperience | Average number of years of experience for birth-attendants at the site |  | |
| baexperienceln | Log of the baexperience variable |  | |
| batrained | Average proportion of birth attendants who have been trained, at the site |  | |
| batypes | Types of staff at facility | 1 = Nurses only  2 = Nurses and auxiliary nurse midwifes  3 = Nurses and female medical officers  4 = Other staff pattern | |
| bascheduledbin | Any birth attendants in scheduled caste | 0 = No  1 = Yes | |
| baobc | Proportion of birth attendants in Other Backward Caste |  | |
| nurseonlybin | > 50% of deliveries attended by one nurse alone | 0 = No  1 = Yes | |
| anmonlybin | > 50% of deliveries attended by one auxiliary nurse midwife alone | 0 = No  1 = Yes | |
| anydocbin | Any deliveries ever attended by a doctor, whether with other clinicians or alone | 0 = No  1 = Yes | |
| scheduled | Proportion of patients in scheduled caste |  | |
| obc | Proportion of patients in Other Backward Caste |  | |
| meangravidaln | Log of meangravida variable |  | |
| complicbeforeln | Log of complicbefore variable |  | |
| anemialn | Log of anemia variable |  | |
| csectionln | Log of csection variable |  | |
| age35plus | Proportion of patients (mothers) aged 35 years or older |  | |
| ageunder25 | Proportion of patients (mothers) aged 25 years or less |  | |
| died0sbrbaseline | Neonatal mortality (as a proportion) for the 12 months preceding the study | |  |
| meangravida | Average number of pregnancies for women at the site |  | |
| lucknow | Indicator for geographical location in the central study hub | 0 = not in central hub  1= in central hub  The central region centered on Lucknow and had different outcomes compared with the four other hubs, which were more similar to each other | |
| anymatmort | Any maternal mortality at the site | 0 = No  1 = Yes | |

This data dictionary was created by Dr. Laura Le, University of Minnesota, based on the dataset and the published articles1,2,3.

Dataset: <https://doi.org/10.7910/DVN/GNJBAO>

1 Semrau, K. E., Hirschhorn, L. R., Kodkany, B., Spector, J. M., Tuller, D. E., King, G., Lipsitz, S., Sharma, N., Singh, V.P., Kumar, B., Dhingra-Kumar, N., Firestone, R., Kumar, V., & Gawande, A.A. (2016). Effectiveness of the WHO Safe Childbirth Checklist program in reducing severe maternal, fetal, and newborn harm in Uttar Pradesh, India: Study protocol for a matched-pair, cluster-randomized controlled trial. *Trials*, *17*(1), 576.

2Semrau KEA, Hirschhorn LR, Marx Delaney M, et al*.* (2017). Outcomes of a coaching-based WHO Safe Childbirth Checklist program in India. *N Engl J Med,* **377:** 2313–24.

3Delaney, M. M., Miller, K. A., Bobanski, L., Singh, S., Kumar, V., Karlage, A., Tuller, D.E., Gawande, A.A., & Semrau, K. E. (2019). Unpacking the null: a post-hoc analysis of a cluster-randomised controlled trial of the WHO Safe Childbirth Checklist in Uttar Pradesh, India (BetterBirth). *The Lancet Global Health*, *7*(8), e1088-e1096.